This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-22. (cancelled)

23. (Currently Amended) A laser comprising:

a gas discharge chamber having at least two electrodes for energizing a laser gas in the chamber to generate optical pulses according to a pulse pattern;

a fluid heat exchanger located in the discharge chamber;

an external fluid source providing fluid to the heat exchanger;

a flow control valve for controlling the amount of fluid provided to the heat exchanger;

a first temperature sensor for measuring the temperature of the laser gas within the discharge chamber and generating first temperature signals;

a second temperature sensor for measuring the temperature of the discharge chamber body and generating second temperature signals; and

a temperature regulation controller for controlling the flow control valve, ~~in response to~~ said controller receiving both the first and second temperature signals, said controller adjusting the flow control valve in response to both the first and second temperature signals.

24. (Previously Presented) A laser as recited in claim 23, further including a third temperature sensor for measuring the temperature of the fluid from the source and generating third temperature signals, said temperature regulation controller for controlling the flow control valve in response to the first, second and third temperature signals.

25. (Previously Presented) A laser as recited in claim 23, further including a heater element in contact with the laser tube and controlled by said temperature regulation controller based on said first and second temperature signals.

26. (Currently Amended) A method for stabilizing gas temperature in a pulsed gas discharge laser, said laser having a discharge chamber, said method comprising the steps of:

directing a flow of cooling fluid through tubing disposed at least partially within the discharge chamber of the laser;

measuring the temperature of the gas in the discharge chamber and generating first temperature signals; and

measuring the temperature of the discharge chamber body and generating second temperature signals; and

adjusting the amount of cooling fluid flowing through the tubing based on both the first and second temperature signals.

27. (Previously Presented) A method as recited in claim 26, further including the step of measuring the temperature of the cooling fluid and generating third temperature signals and adjusting the amount of cooling fluid flowing through the tubing based on the first, second and third temperature signals.

28. (Previously Presented) A method as recited in claim 26, further including the step of heating the discharge chamber using an active heating element substantially surrounding the laser tube.

29. (Previously Presented) A method as recited in claim 26, further including the steps of:

determining an amount of energy dissipation over a period of a pulse pattern of the laser in order to determine an amount of energy dissipation in the discharge chamber; and

adjusting the amount of cooling fluid flowing through the tubing based, at least in part, on the amount of energy dissipation over that period of the pulse pattern.